

Europe's Environmental Issues



Essential Question

- What are the major environmental concerns of Europe?



#1 Air Pollution



- Air is what we breathe. Air supplies us with *oxygen* which is essential for our bodies to live.
- Air is 99.9% nitrogen, oxygen, water vapor and inert gases.
- Human activities can release substances into the air, some of which can cause problems for humans, plants, and animals...causing air pollution.

Air Pollution

- Many of the world's largest and most industrialized countries are in Europe.
 - Paris, London, Berlin, Rome, Amsterdam
- These cities tend to have lots of factories, lots of traffic, and produce a lot of Air pollution.



Air Pollution

- Factories and Power Plants also pump pollutants into Europe's atmosphere.
- The country with the worst Air Pollution in Europe is the **UNITED KINGDOM**



Air Pollution - United Kingdom

- London, capital of UK, is famous for air pollution
 - Word “**smog**” first used in 1905 to describe air in London (thick fog + smoke)
- Thick London smog happens when water in the air mixes with smoke particles from a coal fire



The Great Smog of 1952

- Smog was so dense that, for 4 days, people in London could not see what was in front of them
 - Transportation slowed, crime increased, & thousands of people died from the pollution
 - People around the world became frightened & worried about the quality of the air they were breathing



Sources of Air Pollution

- In the past, the major source was smoke from burning coal (factories)
- Today, exhaust from cars & buses is the problem

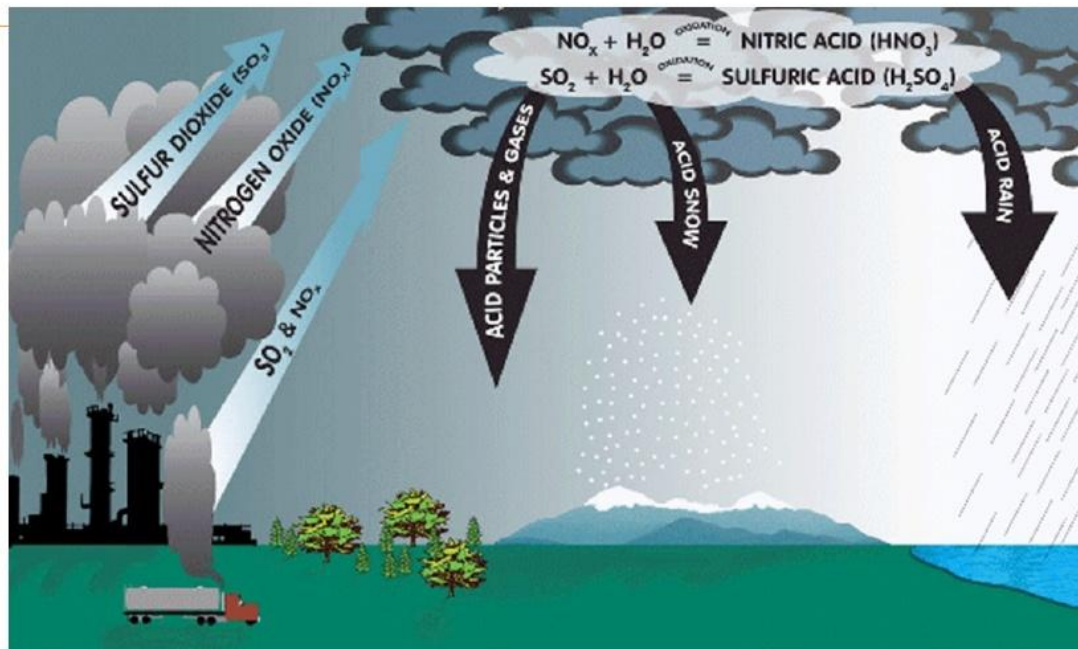


Effects of Air Pollution

- Asthma and pneumonia are linked to vehicle emissions
 - Burns the lungs, nose, and eyes, and endangers human life
- High air pollution keeps children & senior citizens indoors
- Blackens buildings & harms wildlife



#2 Acid Rain



What is Acid Rain?

- Air Pollution leads to health problems, and can affect the environment through ACID RAIN
 - Acid Rain is caused by factories and car exhaust.
 - The pollution gets into the clouds and causes the rain to be unusually acidic.
 - This is harmful to plant life, aquatic animals, humans (cancer), and even buildings and sculptures!

What is Acid Rain?

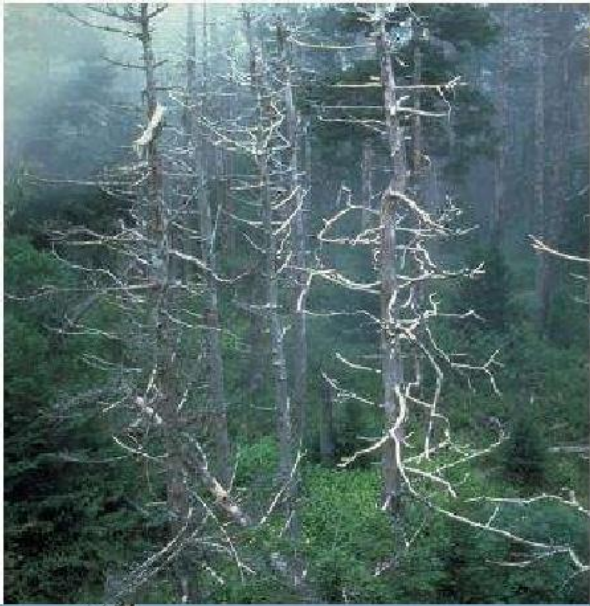
- Acid rain is a result of air pollution. When any type of fuel is burnt, lots of different chemicals are produced and released into the air and mix with water in the clouds.
- The rain from these clouds then falls as very weak acid.
 - It's not acidic enough to burn your skin, but it's very harmful for the environment.

Acid Rain

- The country with the worst acid rain in Europe is **GERMANY**



Courtesy NREL



Germany is Its Own Worst Enemy.

- Main source of acid rain is smoke from factories (burning fuels like natural gas, coal, & oil)
 - Germany is a top manufacturing country—leads the world in cars, steel, & chemical products—so it depends on these factories
- Cars & buses also produce harmful gases
 - Germans own more cars than people of most other countries do

Acid Rain in Germany

- Acid rain has destroyed nearly half of the Black Forest!
 - This has really harmed Germany's economy because one of its major natural resources is timber.
- Acid rain is also polluting the rivers in Germany and harming marine life.

Effects of Acid Rain



#3 Nuclear Disaster

- Chernobyl Nuclear Power Plant
- In 1986, the USSR generated 10% of the world's nuclear power.
- Chernobyl exploded on April 26, 1986 causing a nuclear disaster for Europe.
- 200,000 people evacuated to decrease exposure to radiation

What did it look like?

Before



After



How did the country react?



- **The morning after the explosion, there was no hint of a disaster.**
- **After 36 hours of being exposed to radiation, people were told to pack their clothing and evacuate their homes.**
- **There was a 30 kilometer or 18 mile evacuation.**

What was the effect on other countries?



- Due to prevailing winds, it carried the radioactive particles around the world.

What about the environment?



- At the nuclear power station itself, several attempts were made to clear away and contain chunks of graphite and other radioactive solids.
- They sent in volunteers.
- The volunteers were only allowed to be in the power station for 90 seconds or less.
- The radiation levels were 15,000 times greater than a normal person's exposure in a year.

What about the environment?

- Any movable objects near the plant were buried; cars, trucks, and even topsoil.
- Some 60,000 buildings had to be washed with special chemicals, and even some roofs had to be replaced.
- A special solution was sprayed throughout the danger zone on streets and walkways to prevent radioactive dust from blowing and further contaminating the area.
- Nearby trees that had absorbed the radiation were all cut down and buried in concrete pits.

Is the nuclear plant at Chernobyl still working?

- Chernobyl continued to produce electricity for another 14 years, until international pressure forced its closure in 2000.
- An official exclusion zone around the plant remains in place, extending for 30 kilometers (18 miles). It is one of the most radioactive spots on Earth.

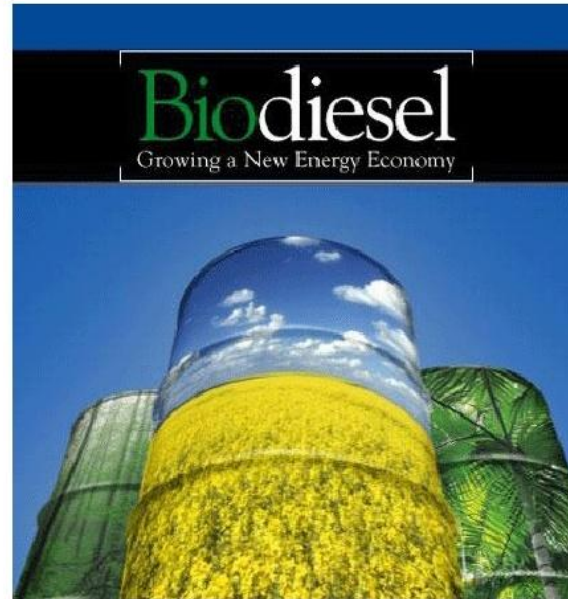
**What is Europe
doing to fix these
problems?...**

European Environmental Policies

- In Western Europe, nations are trying to lessen pollution.
 - They are spending money and researching new ways to produce power that cause less environmental damage.
- In Eastern Europe, few nations are researching new technologies
 - They have less money

European Environmental Policies

- Governments are also researching alternative fuel sources for cars which would lessen air pollution and acid rain.
 - Rather than being made of oil, these fuels come from plant soil.



European Union

- Most countries in Europe are members of a group called the European Union.
 - Since its formation in 1993, the EU has passed policies designed to fight acid rain, improve air quality, restrict toxic waste, and reduce pollution.



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ММ-151

Англійська мова

Презентація на тему “Забруднення навколишнього середовища (повітря)”